The Golden Ratio in Art

Drawing heavily from The Golden Ratio
By Marco Livio
A few pictures from Google Images...
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Fibonacci Spiral
A few pictures from Google Images...
When did it all start?
Babylonian times?

Figure 13
When did it all start?
Babylonian times?

Doubtful.
Ancient Egypt?
Ancient Egypt?

Probably not.
When did it all start?
The Greeks!
When did it all start? The Greeks!

AD/DB = DB/BC = \phi
AB/AC = AC/BC = \phi

Figure 25

Pentagons, pentagrams and Golden Triangles
When did it all start?  
The Greeks! 

Pentagons, pentagrams and Golden Triangles
Icosahedra and dodecahedra
And so begins the numerology...
What about Greek architecture?

The Parthenon?
Moving ahead to the 13\textsuperscript{th} century
Moving ahead to the 13th century

![Image 1: H/W=1.55](image1.png)

![Image 2: H/W=1.59](image2.png)

![Image 3: H/W=1.73](image3.png)
Luca Pacioli (1445-1517)

Painting by Jocopo de' Barbari circa 1473
The Divine Proportion

Written by Luca Pacioli and illustrated by Leonardo da Vinci
Leonardo da Vinci (1452-1519)

- “St. Jerome”: 1483
- Earlier “Madonna on the Rocks”: ~1484
- “Head of an old man” sketch: ~1490
- Work on The Divine Proportion: ~1497
- “Mona Lisa”: ~1504
- Later “Madonna on the Rocks”: 1506
Leonardo da Vinci (1452-1519)

“Head of an old man” sketch
Leonardo da Vinci (1452-1519)

“Mona Lisa”
Leonardo da Vinci (1452-1519)

“Madonna on the Rocks” (1506)
The Cubists:
Juan Gris (1887-1927)
Jacques Lipchitz (1891-1973)

“Arlequin” by Gris
Le Corbusier (1887-1965)
Le Corbusier (1887-1965)

The Modulor
Salvador Dali (1904–1989)

“Sacrament of the Last Supper”
Is the Golden Ratio actually aesthetically pleasing?
One last thought from Google images...

\[ \frac{a}{b} = \frac{a'}{b'} = 1.618 \text{ !!!} \]

golden ratio